



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue, Suite 900  
Seattle, Washington 98101-3140

MAR 25 2011

OFFICE OF  
COMPLIANCE AND ENFORCEMENT

Reply to: OCE-127

Certified Mail Number 7010 2780 0000 2171 6996  
Return Receipt Requested

Mr. Josh Regan  
Plant Manager  
Nu-West Industries, Conda Phosphate Operations  
3010 Conda Road  
Soda Springs, Idaho 83276

Re: **NOTICE OF VIOLATION**  
Nu-West Industries  
EPA ID No. IDD 000466888

Dear Mr. Regan:

This Notice of Violation ("NOV") is to inform Nu-West Industries ("Nu-West") of violations of Sections 304 and 313 of the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. §§ 11004 and 11023, and Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. § 9603. These violations have been identified by EPA based upon a review of records and information provided to EPA by Nu-West in response to information requests issued by the Environmental Protection Agency ("EPA") pursuant to Section 104(e) of CERCLA, 42 U.S.C. § 9604, and from other information sources available to Nu-West.

The following violations have been identified.

**1. Failure to Accurately Report the Release of Lead as Required by EPCRA § 313**

The regulation at 40 Code of Federal Regulations ("C.F.R.") § 372.30 requires that for each toxic chemical manufactured, processed, or otherwise used in excess of an applicable threshold quantity at its facility for a calendar year, the owner or operator must submit to EPA and to the state in which the facility is located a completed EPA Form R (EPA Form 9350-1) by July 1 of the following year. The applicable threshold quantities are specified at 40 C.F.R. §§ 372.25, 372.27, and 372.28.

For each year from 2003 through 2009, Nu-West has manufactured lead compounds exceeding the threshold quantity of 100 pounds per year. The source of lead is from the phosphate ore brought on site to the Nu-West facility. The reaction of sulfuric acid and other chemicals with the phosphate ore results in the coincidental manufacturing of lead compounds. EPA's inclusion



FILE COPY

IDD 688

3-25-11

4c

of intra-category chemical conversions within the definition of “manufacture” was upheld in *Barrick Goldstrike Mines v. Whitman*, 260 F. Supp. 2d 28 (D.D.C. 2003).

EPA has received TRI Form R reports from Nu-West that reported releases of lead in the category of “Total other on-site disposal or other releases” in the amounts and years identified as follows:

<u>Year</u>	<u>Quantity Reported by Nu-West (pounds)</u>
2003	23,617
2004	22,220
2005	24,031
2006	36,346
2007	21,767
2008	24,018
2009	36,061

EPA has calculated that the actual amount of lead released each year was significantly greater than the amounts reported from 2003 through 2007. EPA’s calculated amounts are shown below. The quantities reported in the Form Rs submitted for 2008 and 2009 are well short of the quantities EPA calculated for the years prior to 2008. Given the production rates and phosphate ore source material usage in 2008 and 2009 the amount of lead releases reported for those years is also below reasonable estimates. Nu-West has readily available data (including monitoring data) where reasonable estimates of the amounts released could be determined.

<u>Year</u>	<u>Quantity Calculated by EPA (pounds)</u>
2003	42,251
2004	39,341
2005	43,032
2006	41,564
2007	43,803

Nu-West has not submitted accurate TRI Form R reports for the quantities of lead that were released each year from 2003 through 2009. This constitutes seven (7) violations of 40 C.F.R. § 372.30 and EPCRA Section 313, 42 U.S.C § 11022. Additionally, the State of Idaho has also not been provided accurate TRI Form R reports from Nu-West for the quantities of lead that were released over this same period as required by 40 C.F.R. § 372.30.

## **2. Failure to Accurately Report the Release of Cadmium as Required by EPCRA § 313**

As described above, EPCRA Section 313 and its implementing regulations require, among other things, that an owner or operator submit a Form R annually for each toxic chemical that was manufactured, processed, or otherwise used in quantities exceeding the applicable toxic chemical threshold quantity during the preceding calendar year.

EPA received a TRI Form R from Nu-West that reported a “Total other off-site disposal or other releases” of 19,556 pounds of cadmium compounds in 2003.

EPA has calculated that at least 329,536 pounds of cadmium were released onsite in 2003. The source of cadmium is the phosphate ore brought on site to the Nu-West facility. The reaction of sulfuric acid and other chemicals with the phosphate ore results in the coincidental manufacturing of cadmium compounds. Nu-West has readily available data (including monitoring data) which could have been used to make reasonable estimates of the amounts released.

Nu-West has not submitted an accurate TRI Form R for the release of cadmium in 2003. This constitutes a violation of 40 C.F.R. § 372.30 and EPCRA Section 313, 42 U.S.C § 11022. Additionally, the State of Idaho has also not been provided an accurate TRI Form R from Nu-West for the quantity of cadmium released in 2003 as required by 40 C.F.R. § 372.30.

### **3. Failure to Submit an EPA Form R for Cadmium Compounds Exceeding the Manufacture, Processing or Other Use Threshold Quantity Established Pursuant to EPCRA § 313**

As described above, EPCRA Section 313 and its implementing regulations require, among other things, that an owner or operator submit a Form R annually for each toxic chemical that was manufactured, processed, or otherwise used in quantities exceeding the applicable toxic chemical threshold quantity during the preceding calendar year.

For each year from 2004 through 2009, Nu-West has manufactured cadmium compounds exceeding the threshold quantity of 25,000 pounds per year. The source of cadmium is from the phosphate ore brought on site to the Nu-West facility. The reaction of sulfuric acid and other chemicals with the phosphate ore results in the coincidental manufacturing of cadmium compounds.

EPA has calculated that the cadmium component of the cadmium compounds Nu-West manufactured from 2004 through 2007 was in at least the quantities shown below, well in excess of the applicable reporting threshold:

<u>Year</u>	<u>Quantity (pounds)</u>
2004	283,691
2005	226,922
2006	175,563
2007	189,016

Given the production rates and phosphate ore source material usage in 2008 and 2009, and the nature of manufacturing operations at the Nu-West facility, Nu-West coincidentally manufactured cadmium compounds in 2008 and 2009 well in excess of the threshold quantity. Nu-West has readily available data (including monitoring data) which could have been used to make reasonable estimates of the amounts manufactured.

Nu-West has not submitted TRI Form Rs for cadmium compounds for the years 2004 through 2009. This constitutes six (6) violations of 40 C.F.R. § 372.30 and EPCRA Section 313, 42

U.S.C § 11022. Additionally, TRI Form Rs were not submitted to the State of Idaho over this same time period as required by 40 C.F.R. § 372.30.

**4. Failure to Submit EPA Form Rs for Arsenic Compounds, Chromium Compounds, Copper Compounds, Manganese Compounds, Nickel Compounds, Selenium Compounds, Vanadium Compounds, and Zinc Compounds Exceeding the Manufacture, Processing or Other Use Threshold Quantities Established Pursuant to EPCRA § 313**

As described above, EPCRA Section 313 and its implementing regulations require, among other things, that an owner or operator submit a Form R annually for each toxic chemical that was manufactured, processed, or otherwise used in quantities exceeding the applicable toxic chemical threshold quantity during the preceding calendar year.

For each year from 2003 through 2009, Nu-West has manufactured compounds of arsenic, chromium, copper, manganese, nickel, selenium, vanadium and zinc exceeding the threshold quantity of 25,000 pounds. The source of the base metal for each metal compound is from the phosphate ore brought on site to the Nu-West facility. The reaction of sulfuric acid and other chemicals with the phosphate ore results in the coincidental manufacturing of the various metal compounds.

EPA has calculated that the metal component in the metal compounds Nu-West manufactured from 2004 through 2007 was in at least the quantities shown below, well in excess of the applicable reporting threshold:

<u>Year</u>	<u>Quantity Arsenic (pounds)</u>
2003	52,752
2004	47,061
2005	53,663
2006	51,731
2007	54,816

<u>Year</u>	<u>Quantity Chromium (pounds)</u>
2003	2,096,713
2004	1,892,196
2005	2,587,569
2006	2,440,482
2007	2,232,342

<u>Year</u>	<u>Quantity Copper (pounds)</u>
2003	197,822
2004	171,397
2005	190,664
2006	179,232
2007	160,846

Year    Quantity Manganese (pounds)

2003	237,119
2004	223,087
2005	241,269
2006	232,932
2007	245,409

Year    Quantity Nickel (pounds)

2003	299,423
2004	246,967
2005	295,679
2006	366,575
2007	278,143

Year    Quantity Selenium (pounds)

2003	132,052
2004	124,175
2005	134,385
2006	129,740
2007	136,698

Year    Quantity Vanadium (pounds)

2003	3,317,581
2004	2,962,081
2005	2,470,939
2006	2,315,600
2007	2,219,084

Year    Quantity Zinc (pounds)

2003	3,317,581
2004	2,962,081
2005	2,470,939
2006	2,315,600
2007	2,219,084

Given the production rates and phosphate ore source material usage in 2008 and 2009, and the nature of manufacturing operations at the Nu-West facility, Nu-West also coincidentally manufactured the metal compounds above in 2008 and 2009 in excess of the threshold quantity. Nu-West has readily available data (including monitoring data) which could have been used to make reasonable estimates of the amounts manufactured.

Nu-West has not submitted TRI Form Rs for the compounds identified above for the years 2003 through 2009. This constitutes fifty-six (56) violations of 40 C.F.R. § 372.30 and EPCRA Section 313, 42 U.S.C § 11022. Additionally, TRI Form Rs were not submitted to the State of Idaho for these compounds over this same time period as required by 40 C.F.R. § 372.30.

## **5. Failure to Accurately Report the Release of Hydrogen Fluoride (HF) as Required by EPCRA § 313**

As stated above, EPCRA Section 313 and its implementing regulations require, among other things, that an owner or operator submit a Form R annually for each toxic chemical that was manufactured, processed, or otherwise used in quantities exceeding the applicable toxic chemical threshold quantity during the preceding calendar year.

EPA received TRI Form Rs from Nu-West that reported the total release of “fugitive or non-point air emissions” of HF in the amount of 956.3 pounds each year from 2003 through 2006, 730 pounds in 2007, 197 pounds in 2008, and 569 pounds in 2009.

EPA has calculated that the amount of HF fugitive or non-point air emissions in 2006 was at least 37 tons, principally emitted as fugitive air emissions from the gypsum stacks and cooling pond surface impoundments. EPA has calculated that the amount of HF fugitive or non-point air emissions in 2007 was at least 33.2 tons, and in 2008 was at least 23.8 tons. Given Nu-West’s facility design, manufacturing operations, waste management practices, and relative consistency in raw material inputs (i.e.: phosphate ore, sulfuric acid, water, etc.) from 2003 through 2009, the quantities of HF fugitive or non-point air emissions in 2003 – 2005 and in 2009 would be comparable to that which the Agency calculated for years 2006 through 2008, and in any event well above the amount reported. Nu-West has readily available records upon which to base reasonable estimates of the amount of HF fugitive or non-point air emissions.

In addition, the Form Rs submitted from 2003 through 2005 and from 2007 through 2009 failed to report any disposal of HF to the land on-site, including to surface impoundments, or to report any transfers of HF in wastes to off-site locations. Significant documented releases of gypsum slurry, pond water, and other substances containing HF occurred in November 2003 and March 2007. The November 2003 release was to an off-site location. A significant documented release also occurred in December 2006 to an off-site location. Although the Form R submitted in 2006 reported that an estimated amount in the range of 500-999 pounds of HF was disposed of on-site to “Other Surface Impoundments,” no quantity was reported for the transfer of HF to off-site locations. Therefore, Nu-West did not report an HF transfer to off-site locations resulting from the December 2006 spill.

Nu-West has not submitted accurate TRI Form Rs for the quantities of HF released each year from 2003 through 2009. This constitutes numerous violations of 40 C.F.R. § 372.30 and EPCRA Section 313, 42 U.S.C § 11023. Additionally, the State of Idaho has also not been provided accurate TRI Form Rs from Nu-West for the quantities of HF released over this same time period as required by 40 C.F.R. § 372.30.

## **6. Failure to Provide an Emergency Release Notification to the Local Emergency Planning Committee (LEPC) and State Emergency Response Commission (SERC) upon Releasing Reportable Quantities of an Extremely Hazardous Substance within a 24 Hour Period as Required by EPCRA § 304**

The regulation at 40 C.F.R. § 355.30 requires emergency release notifications to the LEPC and SERC if an owner or operator of a facility (1) produces, uses, or stores a hazardous chemical at the facility, and (2) releases a reportable quantity (RQ) of any Extremely Hazardous Substance (EHS) or of a hazardous substance as defined by CERCLA at the facility.

The regulation at 40 C.F.R. § 355.33 states that the emergency release notification requirements are triggered when a release of a reportable quantity of an EHS or CERCLA hazardous substance has occurred within any 24 hour period. Reportable quantities for EHSs are listed in 40 C.F.R. Part 355, Appendices A and B. Reportable quantities for CERCLA hazardous substances are listed in Table 302.4 of 40 C.F.R. § 302.4. Hydrogen fluoride is listed in both sections and has a RQ of 100 pounds.

EPA has determined that Nu-West regularly exceeded the 24 hour reportable quantity for HF from 2003 until the present given the annual quantities of emissions calculated above in section 5 and given the regular nature of these emissions.

Releases that are continuous and stable in quantity and rate as defined at 40 C.F.R. § 302.8(b) qualify for reduced reporting under 40 C.F.R. § 355.32. For the HF fugitive air emissions, however, Nu-West neither complied with the 40 C.F.R. § 355.32 reporting requirements for releases that are continuous and stable in quantity and rate nor the notification requirement of 40 C.F.R. §§ 355.40 through 355.43.

In addition, Nu-West failed to provide an immediate notification and written follow-up emergency notification to the SERC and LEPC as required by 40 C.F.R. §§ 355.40 through 355.43 for a number of spills to the land that resulted in releases of HF in excess of the reportable quantity within a 24 hour period, including several significant documented releases of gypsum slurry, pond water, and other substances that occurred in December 2006, March 2007, October 2010, and January 2011.

Nu-West has not provided required notifications to LEPC and SERC for 24 hour releases of HF in reportable quantities in accordance with the procedures established at 40 C.F.R. §§ 355.32 through 355.40 in each year from 2003 to the present. This constitutes numerous violations of 40 C.F.R. § 355.30, and Section 304 of EPCRA, 42 U.S.C. § 11004.

#### **7. Failure to Provide an Emergency Release Notification to the National Response Center upon Exceeding the Reportable Quantity of a Hazardous Substance as Required by CERCLA § 103**

The regulation at 40 C.F.R. § 302.6 requires, among other things, that any person in charge of an onshore facility shall, as soon as he or she has knowledge of any release (other than a federally permitted release or application of a pesticide) of a hazardous substance from such facility in a quantity equal to or exceeding the reportable quantity at 40 C.F.R. § 302.4 in any 24-hour period, immediately notify the National Response Center. HF is listed as a hazardous substance at 40 C.F.R. § 302.4, with a reportable quantity of 100 pounds.

As stated above, EPA has determined that Nu-West regularly exceeded the reportable quantity for HF releases in a 24 hour period from at least 2006 through the present through fugitive air emissions and releases to the land.

Releases that are continuous and stable in quantity and rate as defined at 40 C.F.R. § 302.8(b) qualify for reduced reporting under 40 C.F.R. § 302.8. For the HF fugitive air emissions, however, Nu-West neither complied with the 40 C.F.R. § 302.8 reporting requirements for releases that are continuous and stable in quantity and rate nor the notification requirements of 40 C.F.R. § 302.6.

Nu-West has not provided required notifications to the National Response Center for 24 hour releases of HF in reportable quantities in accordance with the requirements established at 40 C.F.R. Part 302 for each year from 2003 to the present. This constitutes numerous violations of 40 C.F.R. § 302.6 and violations of Section 103 of CERCLA, 42 U.S.C. § 9603.

### **EPA Calculations**

Based on the information provided by Nu-West and other information readily available to Nu-West, EPA calculated the amount of releases and the amount of certain metals manufactured and processed or otherwise used at the Nu-West facility for the years 2003 – 2007 by using a mass-balance approach. EPA calculated those amounts by first determining the total amount of each of the following metals present in the phosphate ore as an impurity: arsenic, cadmium, chromium, copper, lead, manganese, nickel, selenium, vanadium, and zinc. By multiplying the concentration of each metal in the phosphate ore by the total amount of ore processed each year, EPA was able to determine the total quantity of each metal present in the respective metal compounds coincidentally manufactured on an annual basis (“gross quantity manufactured”). The quantity of the metal compounds would necessarily be greater than the quantities of the respective base metals. According to Agrium’s product specifications, trace amounts of individual metals are present in each fertilizer product (SPA, MGA, MAP, and APS). Using both this product specification data and the annual production rate of each commercial product produced at the Nu-West facility, EPA was able to calculate the total amount of each metal that was distributed into commerce as a product (“quantity sold”) and that could not otherwise have been disposed of onsite or transferred as a waste offsite. EPA then subtracted the quantity sold from the gross quantity manufactured for each metal in years 2003 through 2007, yielding the quantities of metals identified as the bases for the violations cited above. Agrium’s product specification data did not include analyses for manganese. For this metal only, EPA assumed conservatively that approximately half of the manganese present in the phosphate ore is partitioned as a waste product while the rest remains in the quantity sold.

For the more recent years subsequent to 2007, the Agency understands that annual phosphate production volumes at the Nu-West facility have declined somewhat and this would result in a correspondingly lower amount of each metal compound coincidentally manufactured. However, the calculated amounts of each metal manufactured in 2007 was sufficiently high enough that even taking into account the lower phosphate production volume in 2009 of some 370,000 metric tons (versus 572,000 metric tons in 2007), Nu-West would still have exceeded the applicable TRI reporting thresholds for all metal compound categories identified above.<sup>1</sup>

<sup>1</sup> See Agrium Annual Reports for 2007 and 2009 for total phosphate production volumes.



EPA also calculated that Nu-West releases regularly exceeded the reportable quantity for HF from at least 2006 through 2008. As stated above, HF is principally emitted as fugitive air emissions from the gypsum stacks and cooling pond surface impoundments. EPA calculated those amounts by relying upon HF emission rates measured at the Agrium Redwater Operations facility in Alberta, Canada ("Redwater"), which is similar in design and operation to the Nu-West facility. Agrium's contractors have conducted several measurement studies at Redwater to quantify HF emission flux rates from cooling pond surfaces, gypsum stack surfaces, and other areas. EPA's calculations of the total HF emission rates at the Nu-West facility on an annual basis were based upon these flux rates and the pond surface areas at Nu-West. EPA also took into account federally-permitted releases for the HF reporting violations cited above.

For those spill releases to the land as discrete events, EPA estimated conservatively that the fractional amount of HF present in the solution of spilled liquid, multiplied by the total volume of spilled liquid, resulted in an amount of HF released that was in excess of the RQ. As stated above, the RQ for HF was exceeded on multiple occasions.

---

### **Required Action**

The above violations may subject Nu-West to enforcement action under Section 325 of EPCRA, 42 U.S.C. § 11045 and under Section 109 of CERCLA, 42 U.S.C § 9609, including an action to assess civil penalties. Within twenty-one (21) days of receipt of this NOV, EPA requests that Nu-West submit a written response that identifies all actions the Facility has taken or will take to correct the violations and the time frame for completing such action to comply with both CERCLA and EPCRA.

Please send all material submitted in response to this NOV to:

Peter Magolske  
Air-RCRA Compliance Unit, OCE-127  
U.S. Environmental Protection Agency  
1200 Sixth Avenue, Suite 900  
Seattle, Washington 98101

### **EPA Reservation of Rights**

Notwithstanding this NOV or Nu-West's response, EPA reserves the right to take any action pursuant to EPCRA, CERCLA, or any other applicable legal authority including, without limitation, the right to seek injunctive relief, implementation of response actions or corrective measures, cost recovery, monetary penalties, and punitive damages. Nu-West's response to this NOV does not constitute compliance with EPCRA and CERCLA.

Nothing in this NOV or Nu-West's response shall affect Nu-West's duties, obligations, or responsibilities with respect to the Facility under local, state, or federal law or regulation.

Thank you for your prompt attention to this important matter. If you have any questions relating to this NOV, you may consult with EPA. Technical questions should be directed to Peter Magolske, RCRA Compliance Officer, of my staff at (206) 553-2964. Questions from legal counsel should be directed to Andrew Boyd, Associate Regional Counsel, at 206-553-1222.

Sincerely,

A handwritten signature in black ink, appearing to read "Edward J. Kowalski". The signature is fluid and cursive, with a large initial "E" and "K".

Edward J. Kowalski  
Director

cc: Brian Monson,  
Idaho Department of Environmental Quality